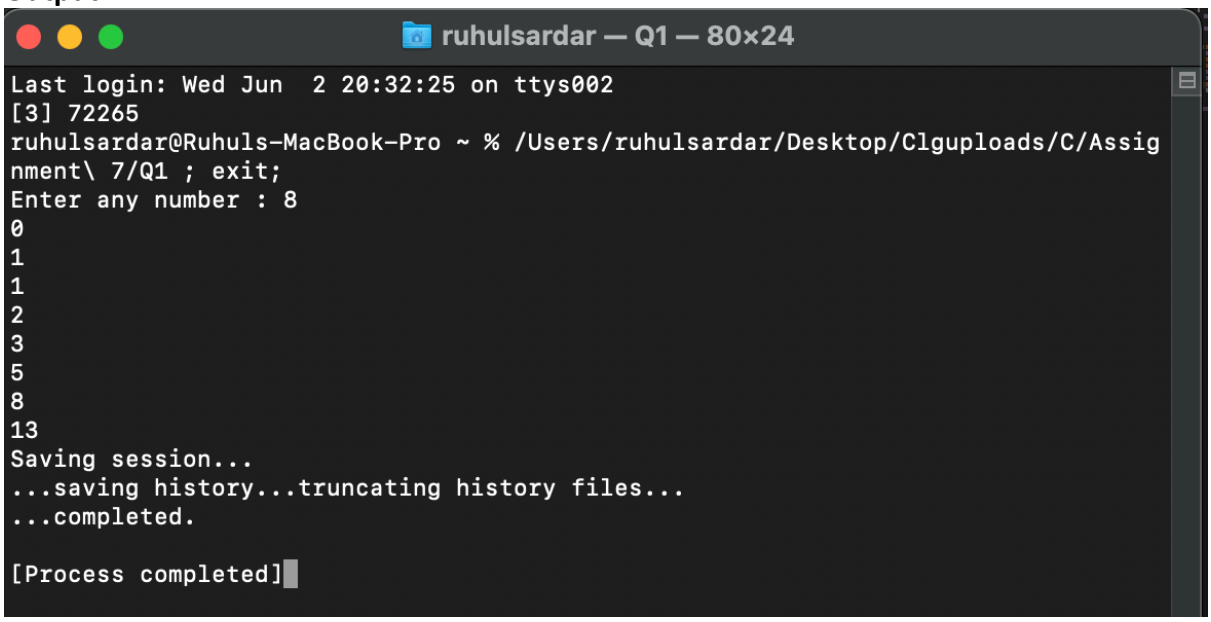
//Q1. C program to print the Fibonacci series using recursion.

```c
#include<stdio.h>

int fibo(int n)
{
   if (n <= 1)
      return n;
   return fibo(n-1) + fibo(n-2);
}

int main (){
    int n;
    printf("Enter any number : ");
    scanf("%d",&n);
    for(int i=0; i<n; i++){
    int fib = fibo(i);
    printf("%d ", fib);
    }


  return 0;
}
```

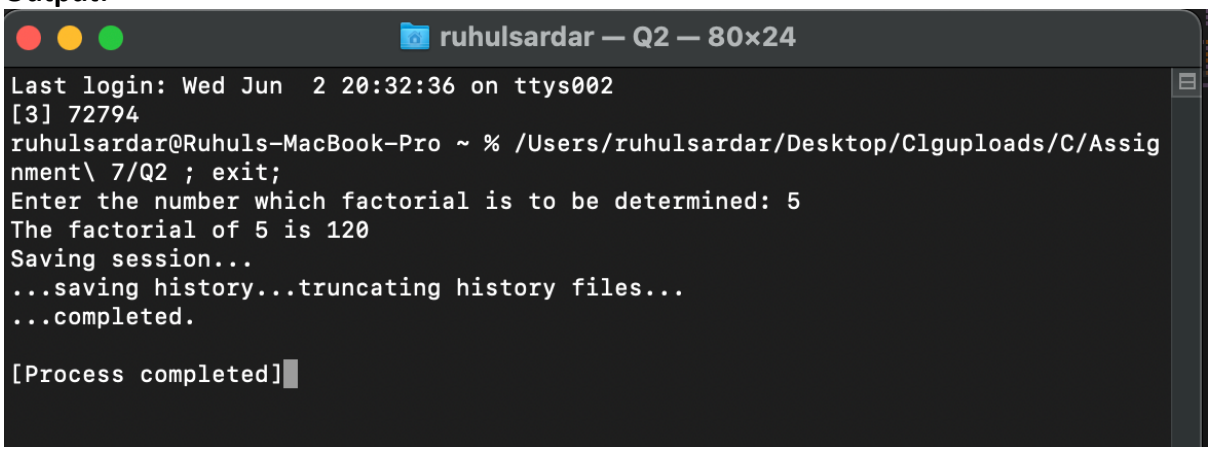
Output:



//Q2. C program to print the factorial of a number using recursion.

```c
#include<stdio.h>

int fact(int n){
    if(n<=1)
    return 1;
    return n*fact(n-1);
}

int main(){
    int n;
    printf("Enter the number which factorial is to be determined: ");
    scanf("%d", &n);
    int F = fact(n);
    printf("The factorial of %d is %d", n,F);

return 0;
}
```

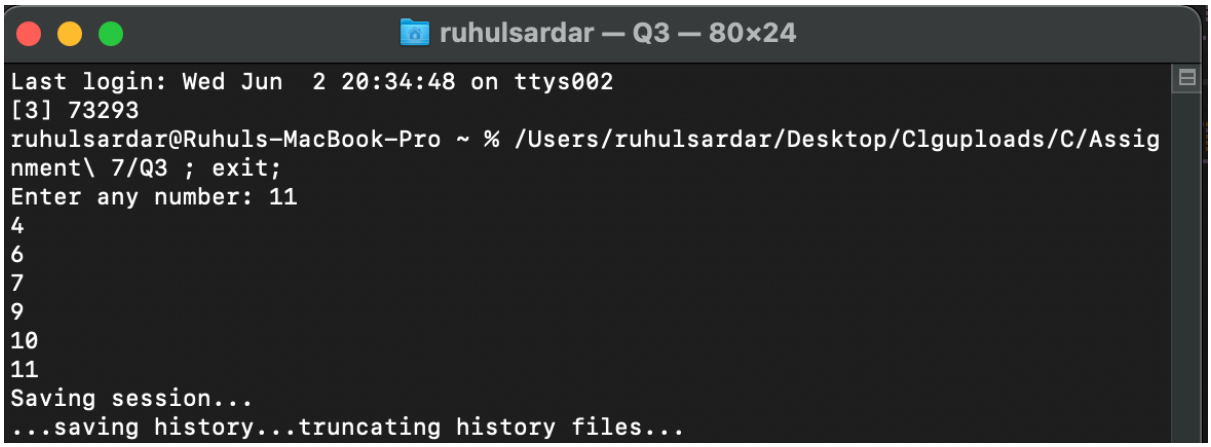
Output:



//Q3. C program to print the non-Fibonacci series using recursion.

```c
#include<stdio.h>

int fib(int n){
    if(n<=1)
    return n;
    return fib(n-1)+fib(n-2);
}

void nonFib(int n){
     int fibn, fibm;
     for(int i=0; i<n; i++){
        fibn = fib(i);
        fibm = fib(i+1);
        for(int j=fibn+1; j<fibm; j++){
            if(j<=n)
               printf("%d ", j);
            else
               break;
        }
     }
}

int main(){
    int n;
    printf("Enter any number: ");
    scanf("%d", &n);
    nonFib(n);

return 0;
}
```

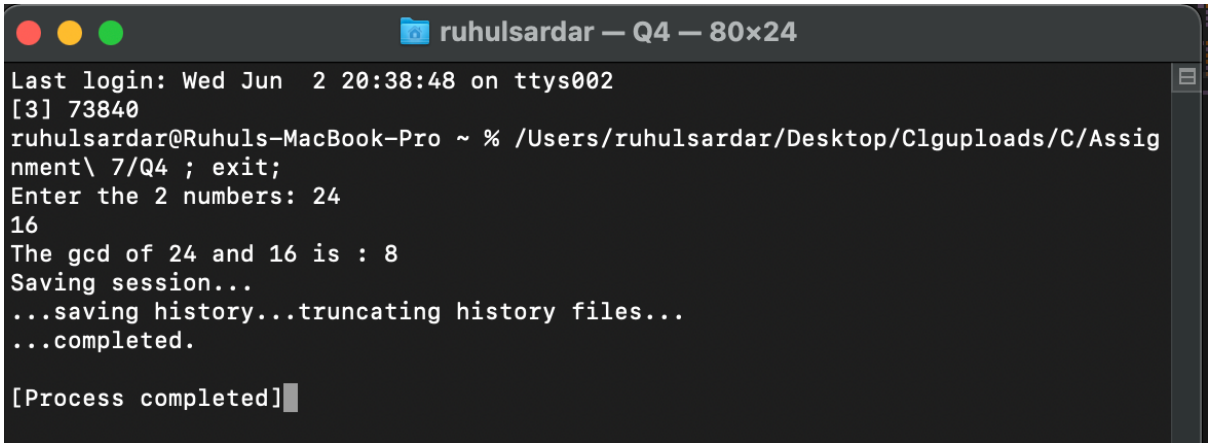
Output:



//Q4. C program to print the GCD of 2 numbers using recursion.

```c
#include<stdio.h>
#include<stdlib.h>

int gcd(int a, int b){
    if(b==0)
    return a;
    return gcd(b,a%b);
}

int main(){
    int x,y;
    printf("Enter the 2 numbers: ");
    scanf("%d%d", &x, &y);
    int G = gcd(x,y);
    printf("The gcd of %d and %d is : %d", x,y,G);


return 0;
}
```

Output:



//Q5. C program for Tower of Hanoi.

```c
#include<stdio.h>

void TOH(int n, char s, char d, char a){
    if(n==1)
    printf("\nMove from %c to %c", s,d);
    else{
        TOH(n-1,s,a,d);
        printf("\nMove from %c to %c", s,d);
        TOH(n-1,a,d,s);
    }
}

int main(){
    int n;
    printf("Enter the number of discs: ");
    scanf("%d", &n);
    TOH(n,'A','C','B');


return 0;
}
```

Output: